What is claimed is:

1. A method of increasing a switch capacity in a switch network system in which three or more switch stages including a plurality of switching elements are connected in serial by using a predetermined logical circuit, the method comprising the steps of:

adding switch stage including a plurality of switching elements to correspond to the each switch stage;

grouping switching elements of a first switch stage and last switch stage in the switch stage and the added switch stage by a predetermined unit, respectively; and

connecting the grouped switching elements of the first stage with corresponding switching elements of an intermediate switch stage which is placed between the first stage and last stage, respectively, and connecting the grouped switching elements of the last switch stage with the corresponding switching elements of the intermediate switch stage, respectively.

2. The method of increasing a switch capacity as claimed in claim 1, wherein the switching elements of the first and last switch stages are grouped by a pair of unit, respectively.

3. The method of increasing a switch capacity as claimed in claim 1, wherein the connecting step includes the steps of:

connecting a first switching element of the each grouped switching element in the first and last switch stages with each switching element of the intermediate switch stage which is not added, respectively; and

connecting the other switching element of the each grouped switching elements in the first and last switch stages with each switching element in the intermediate switch ~~terminals~~ Stage which is added, respectively.

4. The method of increasing a switch capacity as claimed in claim 1, wherein if the switching elements are added to the switch stages of the switch network system, the added switch capacity is increased by the unit of 2^N times.

5. The method of increasing a switch capacity as claimed in claim 1, wherein the connecting step is carried out by changing an access port of input/output terminals of the respective switching elements.

6. A method of increasing a switch capacity in a switch network system in which three or more switch stages including a plurality of switching elements are connected in serial by using a predetermined logical circuit, the method comprising the steps of:

adding switching elements to an intermediate switch stage which is placed between the first stage and last stage, respectively; and

connecting extra input/output terminals of switching elements in first and last switch stages with the added switching elements, respectively.

7. The method of increasing a switch capacity as claimed in claim 6, wherein the first switch stage includes switching element of which ratio of the number of input/output is 1.5 times of n × 2n, whereby n is defined as the number of input of the switching elements and N is defined as a whole capacity of the switch network.

8. The method of increasing a switch capacity as claimed in claim 6, wherein the each switch element of the intermediate switch stage is connected to the switching elements of the first and last switch stages, the switching elements of the intermediate switch stage having the number of input/output of N/n × N/n.

9. The method of increasing a switch capacity as claimed in claim 6, wherein the each switch element of the intermediate switch stage is connected to respective switching element of the

intermediate switch terminal, the switching elements of the intermediate switch stage having the number of input/output of 1.5 times of $2n \times n$.

10. The method of increasing a switch capacity as claimed in claim 6, wherein if switching elements are added to the switch stage of the switch network system, the added switch capacity is increased by the unit of 1.5 times of 2^N.

11. The method of increasing a switch capacity as claimed in claim 6, wherein the connecting step is carried out by changing an access port of input/output terminals of the respective switching elements.

12. The method of increasing a switch capacity as claimed in claim 6, wherein the switching elements are added by the unit of module.